Listing of Claims

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Original): A micelle-containing organic polymer

which comprises at least one peak in its X-ray diffraction pattern,

at least one pair of the diffraction angle (2θ) and the lattice spacing (d) of said peak satisfying the relation (1) given below:

$$2\theta = 2\sin^{-1}(\lambda/2d) \qquad (1)$$

(in the formula, λ represents the wavelength (nm) of the characteristic X-ray Kα1)

and d being at least one value within the range of not less than 0.8 nm to not more than 150 nm.

2. (Original): The micelle-containing organic polymer according to Claim 1,

wherein the micelle is formed of a surfactant (A) in an organic polymer (B) constituting a polymer matrix.

3. (Original): The micelle-containing organic polymer according to Claim 2,

wherein the surfactant (A) is a cationic surfactant (A2).

4. (Original): The micelle-containing organic polymer according to Claim 3,

wherein the cationic surfactant (A2) is a quaternary ammonium salt type cationic surfactant (A2a).

5. (Original): The micelle-containing organic polymer according to any one of Claims 2 to 4

which contains the surfactant (A) in an amount of not less than 0.5 parts by weight per 100 parts by weight of the organic polymer (B).

6. (Currently amended): The micelle-containing organic polymer according to any one of Claims 2 to [[5]] 4,

wherein the organic polymer (B) is a thermosetting resin.

7. (Currently amended): The micelle-containing organic polymer according to any one of Claims 2 to [[5]] 4,

wherein the organic polymer (B) is at least one thermosetting resin (B2) selected from the group consisting of crosslinked/cured materials (B2-1) derived from thermosetting resins (B1a) obtainable by introducing a crosslinking reactive group into thermoplastic resins (B1); crosslinked resins (B2-2) derived from a constituent monomer of the thermoplastic resins (B1) and a crosslinking monomer; phenol resins (B2-4), and furan resins (B2-5).

8. (Original): A method of producing a micelle-containing organic polymer

which comprises forming micelles of the surfactant (A) in a monomer and/or prepolymer, and then subjecting the monomer and/or prepolymer to polymerization and curing.

9. (Original): An organic polymer porous material

which comprises the total volume of pores having diameters within the range of ± 40% of the pore diameter Dmax showing a maximum peak in a pore diameter distribution curve is not smaller than 50% by volume based on the total pores volume.

10. (Original): The organic polymer porous material according to Claim 9

which comprises at least one peak in its X-ray diffraction pattern,

at least one pair of the diffraction angle (2θ) and the lattice spacing (d) of said peak satisfying the relation (1) given below:

$$2\theta = 2\sin^{-1}(\lambda/2d) \qquad (1)$$

(in the formula, λ represents the wavelength (nm) of the characteristic X-ray Kα1)

and d being at least one value within the range of not less than 0.8 nm to not more than 150 nm.

11. (Original): The organic polymer porous material according to Claim 9 or 10,

wherein the pore diameter Dmax showing a maximum peak in the pore diameter distribution curve is not smaller than 0.3 nm but not larger than 100 nm.

12. (Currently amended): The organic polymer porous material according to ~~any one of Claims 9 to 11~~ Claim 9 or 10,

wherein the organic polymer is a thermosetting resin.

13. (Currently amended): The organic polymer porous material according to ~~any one of Claims 9 to 12~~ Claim 9 or 10,

wherein the organic polymer (B) is at least one thermosetting resin (B2) selected from the group consisting of crosslinked/cured materials (B2-1) derived from thermosetting resins (B1a) obtainable by introducing a crosslinking reactive group into thermoplastic resins (B1); crosslinked resins (B2-2) derived from a constituent monomer of the thermoplastic resins (B1) and a crosslinking monomer; phenol resins (B2-4), and furan resins (B2-5).

14. (Original): A method of producing an organic polymer porous material

which comprises forming micelles of the surfactant (A) in a monomer and/or prepolymer and then subjecting the monomer and/or prepolymer to polymerization and curing to give a micelle-containing organic polymer, and further removing the surfactant (A) from said polymer.

15. (Original): The method of producing an organic polymer porous material according to Claim 14,

wherein the surfactant (A) is removed by baking and/or solvent extraction.

16. (Original): A porous carbon material

which comprises the total volume of pores having diameters within the range of ± 40% of the pore diameter Dmax showing a maximum peak in a pore diameter distribution curve is not smaller than 50% by volume based on the total volume of pores.

17. (Original): The porous carbon material according to Claim 16

which comprises at least one peak in its X-ray diffraction pattern,

at least one pair of the diffraction angle (2θ) and the lattice spacing (d) of said peak satisfying the relation (1) given below:

$$2\theta = 2\sin^{-1}(\lambda/2d) \qquad (1)$$

(in the formula, λ represents the wavelength (nm) of the characteristic X-ray Kα1)

and d being at least one value within the range of not less than 0.8 nm to not more than 150 nm.

18. (Original): The porous carbon material according to Claim 16 or 17,

wherein the pore diameter Dmax showing a maximum peak in the pore diameter distribution curve is not smaller than 0.3 nm but not larger than 100 nm.

19. (Original): An electrode

which comprises the porous carbon material according to Claim 16.

20. (Original): An adsorbent

which comprises the porous carbon material according to Claim 16.

21. (Original): A method of producing a porous carbon material

which comprises forming micelles of the surfactant (A) in a monomer and/or prepolymer and then subjecting the monomer and/or prepolymer to polymerization and curing to give a micelle-containing organic polymer, and further baking said polymer for carbonization.